IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

VERSUS TECHNOLOGY, INC.,	)	
	)	
Plaintiff,	)	
v.	)	Civil Action No. 04-1231 (SLR)
	)	
RADIANSE, INC.	)	
	)	
Defendant.	)	

OPENING BRIEF IN SUPPORT OF RADIANSE'S MOTION FOR SUMMARY JUDGMENT OF NON-INFRINGEMENT AND PATENT INVALIDITY

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TABLE OF CONTENTS

TABLE OF AUTHORITIES

PAGE

Cases

Statutes

Defendant, Radianse, Inc. ("Radianse") submits this Opening Brief in support of its Motion for Summary Judgment that its accused indoor positioning system ("IPS") does not infringe any of the patents-in-suit[1] either literally or under the doctrine of equivalents.[2] Radianse further moves for summary judgment that claims 25, 48 and 66 of the '791 patent, and claims 1 and 13 of the '195 patent, are invalid as anticipated under 35 U.S.C. §102, and that claims 1 and 13 of the '195 patent are further invalid as obvious under 35 U.S.C. §103. The grounds for Radianse's Motion for Summary Judgment are set forth in this Brief and in the accompanying Affidavit of Paul Tessier and in the Expert Report of Nathaniel M. Sims and the Expert Report of Nathaniel M. Sims Regarding Non-Infringement submitted herewith.

I. INTRODUCTION

In this action, the Plaintiff, Versus Technology, Inc. ("Versus"), alleges that Radianse's IPS infringes the asserted claims of the patents-in-suit. In its Second Amended Answer and Amended Counterclaim, Radianse denied all allegations of infringement, alleged that the patents-in-suit are invalid, and counterclaimed for tortious interference with economic relationships. This Court stayed discovery on Radianse's counterclaim pending resolution of Versus' allegations of patent infringement.

On June 24, 2005, Radianse filed its Consolidated Motion to Dismiss for Lack of Standing, in which Radianse asserted that the '195 and '791 patents must be dismissed, because: (1) Versus lacks standing to sue Radianse for infringement of those patents without joining the patent owner, Freshloc Technologies, Inc., because Versus does not possess all substantial rights

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[1] The patents-in-suit are United States Patents Nos. 5,027,314 (the "'314 patent"); 5,572,195 (the "'195 patent"); RE36,791 (the "'791 patent'); and 6,154,139 (the "'139 patent"). The specific patent claims asserted against Radianse by Versus are set forth in the parties' Joint Claim Construction Statement and are addressed in the Statement of Facts herein.

[2] Radianse has separately moved to dismiss in its Consolidated Motion to Dismiss. To the extent that this Court deems that such motion raises a factual issue, Radianse further moves for summary judgment on the grounds

to those patents; and (2) Versus does not have standing to sue Radianse, because Radianse's accused IPS is outside the area of exclusivity stated in Versus' license.

The parties filed their Joint Claim Construction Statement on November 4, 2005, and subsequently briefed the issue of claim construction.

Radianse's claim construction brief (at III) provides an overview of the patents-in-suit and Radianse's accused IPS system.

II. SUMMARY OF THE ARGUMENT

This Court should enter summary judgment of non-infringement as to each of the asserted claims of the patents-in-suit. At least one element of each asserted claim is not found in the accused Radianse IPS.

While numerous limitations of the asserted claims are not infringed by Radianse either literally or under the doctrine of equivalents, three of the patents-in-suit (the '314, '195, and '139 patents) require the use of "tags" or transmitters that send unique identification information by "light based" or infrared radiation. It is undisputed that Radianse's IPS does not meet this requirement, because its tags transmit the unique tag identification by means of radio frequency (RF) transmissions. IR and RF transmissions have very different characteristics. Radianse's IPS uses a completely different methodology for locating tags in comparison to the patents-in-suit.

As to those claims of the '314, '195, and '139 patents that include limitations stated in means-plus-function format, it is undisputed that Radianse's IPS does not perform the claimed functions, and also that it differs materially from the structure disclosed in the patents that performs the claimed functions.

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that there is no genuine issue of material fact relating to its Consolidated Motion to Dismiss, and that Radianse is entitled to judgment in its favor as a matter of law for the reasons set forth therein.

Radianse does not literally infringe the asserted claims of the '791 patent, because it does not configure its system so that the signal from a tag is received by only one receiver. To the contrary, Radianse configures its system so that transmissions from tags are received by multiple receivers. Thus, Radianse's IPS does not use receivers that are configured to receive tag transmissions from "an assigned area of a pre-determined size," as required by all asserted claims of the '791 patent. This is so, because the Radianse system and the system claimed in the '791 patent are fundamentally different. The Radianse system is specifically designed so that multiple receivers will receive a transmission from a single tag. The receivers then use "RSSI" (received signal strength) to calculate the location of the tag. In sharp contrast, the system patented under the '791 patent works properly only if a signal receiver is located in each "area," and a transmission from a tag is picked up by only one receiver. The receiver's location is then determined by reference to the receiver that picked up the transmission. In addition, Radianse's IPS does not use receivers that are "responsive to the receipt of a tag transmission," as required by each asserted claim of the '791 patent.

Versus is estopped from asserting infringement of the '791 patent under the doctrine of equivalents because of arguments the applicant for the '791 patent made to the examiner over cited prior art.

The '791 patent is invalid because each element of each asserted claim is anticipated by the Levinson and Welch prior art. The asserted claims of the '195 patent are likewise anticipated by the Greenspun, Hopper, Conrad, and Chaco prior art patents. In addition, the latter claims are invalid by reason of obviousness in light of prior art publications and the Welch patent. There is no genuine issue of material fact regarding the prior art, and summary judgment of invalidity should be entered as to the '791 and '195 patents.

III. STATEMENT OF MATERIAL FACTS AS TO WHICH THERE IS NO GENUINE ISSUE

A. FACTS RELATING TO NON-INFRINGEMENT

1. Radianse manufactures and sells the Radianse Indoor Positioning System (IPS). (Tessier Affidavit, ¶ 3).

2. The Radianse IPS accurately and continuously tracks the location of assets or people in virtually any indoor environment. The Radianse IPS is based on a proprietary technique developed by Radianse to identify and determine the location of objects indoors. The Radianse IPS is comprised of four parts – a small, inexpensive, battery-powered transmitter called an ID Tag, a receiving unit called a Receiver, a wired or wireless network, and application software. (Tessier Affidavit, ¶ 5).

3. ID Tags are small devices that transmit unique identification codes and status information by means of radio frequency (RF) transmissions. These ID tags are worn by individuals or attached to assets to be tracked. (Tessier Affidavit, ¶ 6).

4. RF transmissions have different physical properties and characteristics from transmissions that are "light based" such as IR transmissions. RF transmissions are of a different wavelength than IR transmissions. RF transmissions are not blocked by opaque objects such as walls. IR and other light based transmissions are blocked by opaque objects such as walls. (Tessier Affidavit, ¶ 7).

5. ID Tags using RF transmitters to transmit unique tag identifying codes are less expensive than ID Tags using IR transmitters, because they use less energy and consequently cause less drain on batteries. (Tessier Affidavit, ¶ 8).

6. Signals from the ID Tags are received by Receivers. Receivers are placed at various locations around a facility and connect directly to the facility's network. Receivers

process the signals received from the ID Tags then send the data to a PC running Radianse software. (Tessier Affidavit, ¶ 9).

7. The Radianse software contains a proprietary algorithm to identify and determine the location of ID Tags, which it then makes available through a web interface, sends to existing customer databases/applications, or sends on to other value-added applications via XML. (Tessier Affidavit, ¶ 10).

8. In the Radianse IPS, ID Tags are identified by signals that are transmitted in the form of RF packets that are sent as 80 bits of Manchester encoded data. In particular, each RF packet includes a 32 bit unique identification of the ID Tag. (Tessier Affidavit, ¶ 11).

9. In addition to providing unique identification information for the ID Tag, the RF signal transmitted by the ID Tag in the Radianse constitutes the primary information used by the Radianse IPS software to locate the ID Tag. (Tessier Affidavit, ¶ 12).

10. The ID Tags in the Radianse IPS do not transmit identification information by means of IR. (Tessier Affidavit, ¶ 13). The Radianse System does not generate a light based signal that includes a unique identifying code. (Sims Non-Infringement Report, ¶ 21).

11. The Radianse IPS does not determine the identification of ID Tags by means of IR transmissions. (Tessier Affidavit, ¶ 14).

12. The RF transmissions from ID Tags in the Radianse IPS are followed by the transmission of a short IR signature in standard industry format that does not contain identification information and that is not unique to Radianse. The IR signal can only be received if a valid RF packet is received. The IR signal has no relevance or meaning by itself. (Tessier Affidavit, ¶ 15) (Sims Non-Infringement Report, ¶ 21).

13. The IR signal transmitted by the ID Tags in the Radianse IPS does not identify the ID Tag. (Tessier Affidavit, ¶ 16).

14. The RF transmissions from ID Tags in the Radianse IPS provide the primary means by which the locations of the ID Tags are calculated by Radianse. The IR signals transmitted by the Radianse ID Tags provide supplementary location information. (Tessier Affidavit, ¶ 17).

15. The Radianse IPS requires the RF signal to locate and identify ID Tags, but does not require the IR signal either to identify or locate ID Tags. (Tessier Affidavit, ¶ 18).

16. In the Radianse IPS, Receivers are deployed with overlapping areas of signal reception. RF transmissions from an ID Tag are received by multiple Receivers. The received strength (RSSI) from an ID Tag at a Receiver is proportional to the distance of the ID Tag from the Receiver. The RSSI value from an ID Tag is the primary means by which the locations of the ID Tags are determined by the Radianse system. (Tessier Affidavit, ¶ 19). The use of ID Tags that transmit the unique TAG ID by means of RF enable multiple receivers in different rooms to receive a given tag transmission and enable Radianse to determine the location of the tag by means of RSSI. Such technology cannot be used where the tags transmit only IR signals. (Tessier Affidavit, ¶ 20).

17. Radianse's receivers are not sited so that the signal from a tag is received by only one receiver; Radianse does not use "area detection." By using RF transmissions from ID Tags containing the unique Tag ID and RSSI, the Radianse IPS is able to identify and locate tags that could not be identified and located by the use of IR transmissions from tags containing the unique Tag ID. (Tessier Affidavit, ¶ 21). Radianse's system does not deploy its receivers such that one receiver is associated with each area, and does not use receivers that receive

transmissions from assigned areas of a predetermined size. (Sims Non-Infringement Report, ¶s 23, 37).

18. Signals from ID Tags are received to the limit of the noise floor of the environment and the Receiver. Radianse does not use limited area and extended area receivers. Reception of Tag signals at a Receiver is not limited to an assigned area. (Tessier Affidavit, ¶ 22).

19. Radianse Receivers transmit data packets to the Radianse Server on a regular, pre-determined schedule. Receivers send a packet to the Server independent of whether or not the Receiver has received signals from ID Tags. Transmission from a Receiver is independent of ID Tag transmission and Server operations. Radianse's Receivers do not provide output resulting from or triggered by the receipt of a Tag transmission. (Tessier Affidavit, ¶ 23) (Sims Non-Infringement Report, ¶ 39).

20. Radianse's IPS does not have a processor that performs the functions of (1) recording electrical signals which are representative of unique identifying codes; (2) recording the receiver which determined that such electrical signals are representative of the unique identifying codes associated with said transmitters; or (3) determining in which of said areas said transmitters are located. (Tessier Affidavit, ¶ 24).

21. The Radianse Server does not scan Receivers for information and the Receivers do not send packets in response to receiving a signal from an ID Tag. Rather, the Radianse system pushes information so that the processor need not monitor the receiver. Radianse's system does not employ a controller to collect information packets from Receivers. Receivers themselves transmit data, which is sent directly to the Server. (Tessier Affidavit, ¶ 25) (Sims Non-Infringement Report, ¶ 271).

22. The Radianse Server does not accumulate with respect to each transmitter those areas in which receivers have determined that an electrical signal is representative of the unique identifying code associated with that particular transmitter. (Tessier Affidavit, ¶ 26).

23. The Radianse Server does not accumulate a badge count for each accumulated area. (Tessier Affidavit, ¶ 27) (Sims Non-Infringement Report, ¶ 29).

24. The Radianse system does not maintain a count or record of the number of times a Receiver receives a signal from an ID Tag. (Tessier Affidavit, ¶ 28).

25. Receivers communicate with the Server using a fixed protocol. Data from the Receiver is always sent in the same format and is sent in its entirety so there is no need to identify what data is being sent. Radianse does not use a variable-based protocol that implements object identifier variables. The Radianse Server does not employ a Management Information Base (MIB) in which variables are assigned to information to be communicated and new variables are assigned when additional information needs to be conveyed. With the Radianse system, there is no provision for getting or sending variables over the network using object identifiers. In contrast, Radianse sends all the information available from a device with each transmission from that device. No object identifiers are required, since the sequence is always the same and the data elements are always of the same length. Radianse does not use SNMP or anything like SNMP. (Tessier Affidavit, ¶ 29) (Sims Non-Infringement Report, ¶ 49).

26. Radianse's receivers connect directly to a computer network and do not require or use an external device controller. (Tessier Affidavit, ¶ 30) (Sims Non-Infringement Report, ¶ 53, 57).

27. Radianse's receivers do not have a converter for converting a transmitted light-based signal to an electrical signal. (Tessier Affidavit, ¶ 31).

28. Radianse's receivers do not have a validation circuit for processing said electrical signal to determine whether said electrical signals are representative of the unique identifying code associated with said transmitters. (Tessier Affidavit, ¶ 32) (Sims Non-Infringement Report, ¶ 25).

29. Radianse's IPS does not have concentrators. (Tessier Affidavit, ¶ 33).

30. Radianse's IPS does not have collectors. (Tessier Affidavit, ¶ 34).

31. Radianse's IPS does not have interface circuitry. (Tessier Affidavit, ¶ 35).

32. Radianse's IPS does not use area detection packets. (Tessier Affidavit, ¶ 36).

33. Radianse's IPS does not generate extended area detection packets or limited area detection packets. (Tessier Affidavit, ¶ 37).

34. Radianse's IPS does not use extended area receivers or limited area receivers. (Tessier Affidavit, ¶ 38) (Sims Non-Infringement Report, ¶s 66, 68, 70, 72).

35. A comparison of the Radianse System to each asserted claim for the four patents at issue is set forth in Exhibit A. (Tessier Affidavit, ¶ 39).

B. FACTS RELATING TO INVALIDITY OF THE ASSERTED PATENTS

i. U.S. Patent No. RE 36,791

36. U.S. Patent Number RE 36,791 reissued on July 25, 2000. The '791 patent is a reissue of Patent Number 5,119,104 filed on May 4, 1990. (Expert Report of Nathaniel Sims ("Sims Report"), ¶ 14).

37. The '791 patent discloses a location system adapted for use in environments subject to multipath effects, implementing object location by (a) time-of-arrival differentiation using tag transmissions received by multiple receivers (high resolution embodiment), or (b) area-detection using receivers that receive tag transmissions from an assigned area (low resolution

embodiment) (See Summary of the Invention, Col. 1 of the '791 patent). Claims 25[3], 48, and 66 of the '791 patent correspond to the low resolution embodiment with claims 25 and 66 directed to a system and claim 49 directed to a method. (Sims Report, ¶ 15).

38. The filing date of U.S. Patent Number 4,611,198 ("Levinson") is September 19, 1985. Levinson therefore predates the '791 patent. (Sims Report, ¶ 17).

39. Levinson anticipates each and every element of claims 25 and 48 as shown in the invalidity claim chart attached to the Sims Report in Exhibit F. (Sims Report, ¶ 18) (The chart is also included in this Brief at 22).

40. Dr. Nathaniel Sims' research in the field of indoor positioning technologies resulted in U.S. Patent Number 5,319,363 ("Welch") of which he is a co-inventor. Dr. Sims and Mr. Welch developed the technology of Welch at least as early as November 10, 1989. As such, their date of invention predates the filing date of the '791 patent. (Sims Report, ¶ 18).

41. Welch anticipates each and every element of claims 25, 48, and 66 of the '791 patent as shown in the invalidity claim chart attached to the Sims Report in Exhibit F. (Sims Report, ¶ 19) (The chart is also included in this Brief at 22).

ii. U.S. Patent No. 5,572,195

42. U.S. Patent Number 5,572,195 issued on November 5, 1996. The '195 patent was filed with the U.S. Patent Office on August 1, 1994. (Sims Report, ¶ 20).

43. The '195 patent discloses an object location, control, and tracking system implemented using an object identifier variable-based protocol, such as SNMP. Claims 1 and 13 have been asserted against Radianse. Claim 1 is directed to a system and claim 13 is directed to a method. (Sims Report, ¶ 21).

[3] As of the date of the Sims Report, Radianse understood that Versus was asserting independent claim 25 of the '791 patent against Versus. Radianse has since learned that Versus does not assert claim 25, but does assert claim 39 that

44. The filing date of U.S. Patent Number 5,150,310 ("Greenspun") is September 19, 1989. Greenspun therefore predates the '195 patent. (Sims Report, ¶ 23).

45. Greenspun anticipates each and every element of claims 1 and 13 as shown in the invalidity claim chart attached to the Sims Report in Exhibit F. (Sims Report, ¶ 24) (The chart is also included in this Brief at 29).

46. The filing date of U.S. Patent Number 5,402,469 ("Hopper") is November 9, 1992. Hopper therefore predates the '195 patent.

47. Hopper anticipates each and every element of claims 1 and 13 as shown in the invalidity claim chart attached to the Sims Report in Exhibit F. (Sims Report, ¶ 25) (The chart is also included in this Brief at 29).

48. The filing date of U.S. Patent Number 5,426,425 ("Conrad") is October 7, 1992. Conrad therefore predates the '195 patent. (Sims Report, ¶ 26).

49. Conrad anticipates each and every element of claims 1 and 13 as shown in the invalidity claim attached to the Sims Report in Exhibit F. (Sims Report, ¶ 27) (The chart is also included in this Brief at 29).

50. The filing date of U.S. Patent Number 5,455,851 ("Chaco") is July 2, 1993. Chaco therefore predates the '195 patent. (Sims Report, ¶ 28).

51. Chaco anticipates each and every element of claims 1 and 13 as shown in the invalidity claim attached to the Sims Report in Exhibit F. (Sims Report, ¶ 29) (The chart is also included in this Brief at 29).

52. The Promotional Document entitled: "Touch Path: The Low Cost Data Path for Touch Memory: Access Control, Time & Attendance, Personnel Locating, Equipment Locating," dated July 14, 1993 predates the '195 patent. (Sims Affidavit, ¶ 30).

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depends from claim 25. Versus must still prove that each element of claim 25 is infringed.

53. This Promotional Material from Ungermann-Bass regarding SNMP having a copyright of 1992 predates the '195 patent. (Sims Report, ¶ 31).

54. The '195 patent combines the features of SNMP with wireless transmission. As can be seen in the Promotional Document entitled: "Touch Path: The Low Cost Data Path for Touch Memory: Access Control, Time & Attendance, Personnel Locating, Equipment Locating," Precision Tracking FM, Inc. was marketing an infrared based tracking system. As can be seen from the Ungermann-Bass Promotional Materials, SNMP was a standard network protocol at the time. Indeed, the '195 patent appears to be nothing more than the system disclosed in Precision Tracking FM's document implemented using the standard SNMP networking protocol. The foregoing publications hence render obvious at least claims 1 and 13 of the '195 patent. (Sims Report, ¶ 32).

55. Sims is a co-inventor of U.S. Patent Number 5,319,363 ("Welch"). He can attest to the fact that he had developed the technology of the patent at least as early as November 10, 1989. As such, their date of invention predates the filing date of the '791 patent. (Sims Report, ¶ 33).

56. Welch discloses the use of the standard SNMP networking protocol. Although Welch only discloses the use of radio frequency wireless transmissions, in view of the above anticipatory references it would have been obvious to implement infrared in the system described in Sims-Welch since it was commonplace at the time of the filing of the Welch patent. Hence, Welch renders obvious at least claims 1 and 13 of the '195 patent. (Sims Report, ¶ 34).

IV. ARGUMENT

A. APPLICABLE LAW

This court has recently articulated the standards applicable to motions for summary judgment in *Boston Scientific Scimed, Inc. v. Cordis Corp.*, 2005 U.S. Dist. LEXIS 23612, at *5-*6 (D. Del. Oct. 14, 2005). In the same case, this Court stated the law governing the issue of patent infringement. *Id.* at *19-*20.

This Court stated the law applicable to patent infringement under the doctrine of equivalents in *Tenneco Automotive Operating Co., Inc. v. Visteon Corp.*, 375 F. Supp. 2d 396, 401-402 (D. Del. 2005), including a discussion of the manner in which the doctrine of equivalents is limited by the doctrine of prosecution history estoppel under *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722 (2002).

Regarding the issue of patent validity, this Court articulated the applicable legal standards regarding the concept of anticipation under 35 U.S.C. §102 in *Matsushita Elec. Indus. Co., Ltd. v. Cinram International*, 299 F. Supp. 2d 348, 361-2 (D. Del. 2004). Legal requirements for establishing that a patent claim is obvious under 35 U.S.C. §103 are further discussed in the same case at 362-364.

The legal standards for determining whether a "means-plus-function" limitation has been infringed were addressed by this Court in *TA Instruments, Inc. v. The Perkin-Elmer Corp.*, 200 U.S. Dist LEXIS 5989, at *3-*4 (D. Del. 2002), as follows:

> A means-plus-function limitation recites a function to be performed rather than structure or materials that perform the function, and such a limitation therefore must be construed "to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." 35 U.S.C. § 112, P6 (1994); Chiuminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc., 145 F.3d 1303, 1307-8 (Fed. Cir. 1998). For an accused structure to literally infringe a means-plus-function limitation, "the accused structure must either be the same as the disclosed structure

> or be an 'equivalent,' i.e., (1) perform the identical function and (2) be otherwise insubstantially different with respect to structure." Kemco Sales, Inc. v. Control Papers Co., Inc., 208 F.3d 1352, 1364 (Fed. Cir. 2000). "Structures may be 'equivalent' for purposes of section 112, paragraph 6 if they perform the identical function, in substantially the same way, with substantially the same result." *Id.*

B. RADIANSE DOES NOT INFRINGE ANY OF THE PATENTS-IN-SUIT EITHER LITERALLY OR UNDER THE DOCTRINE OF EQUIVALENTS

Under the legal standards articulated in the above-cited decisions of this Court, summary judgment should be granted in favor of Radianse, because there is no genuine issue of material fact as to the operation of Radianse's IPS, and Radianse's IPS does not infringe any of the asserted patents as a matter of law either literally or under the doctrine of equivalents.

i. The '314 Patent

Claim 1 of the '314 patent contains "means plus function" limitations. The undisputed facts establish that Radianse's IPS does not perform the claimed functions and that it does not have structure that is the same as or equivalent to the structure disclosed in the patent that corresponds to the claimed functions.

Regarding the "transmission means" limitation, the claimed function is "transmitting a light based signal representative of an identifying code unique to the transmitter." It is undisputed that Radianse's IPS employs tags that transmit the unique tag ID by means of radio frequency (RF) rather than a "light-based signal" (*i.e.*, infrared or IR). (Statement of Facts ("SF") 3, 10, 11). While the RF transmission from ID Tags in the Radianse IPS are followed by the transmission of a short IR transmission, the IR transmission is in standard industry format that does not contain the Tag ID and is not unique to Radianse. (SF 12). The IR signal transmitted by the ID Tags in the Radianse IPS does not identify the ID Tag. (SF 13).

By reason of this undisputed essential difference, Radianse's IPS does not infringe asserted claims 1 and 9 of the '314 patent. As Wayne Duncan, co-inventor of the '314 patent freely testified, an RF signal would not be a "light-based signal." (Declaration of Sibley P. Reppert in Support of Radianse's Claim Construction Brief, Exhibit G, at 27). There is simply no factual dispute as to how the tags in the Radianse IPS transmit unique identification information. They do so by means of RF transmissions, not by means of IR transmissions.

Radianse's IPS does not perform the claimed function of the "transmission means", and it does not have the disclosed structure corresponding to that function or an equivalent structure. It is undisputed that Radianse's system works in a different way and achieves a different result than the claimed transmission of "a light-based signal representative of an identifying code unique to [the] transmitter" under the '314 patent. Unlike IR signals, RF signals travel through opaque objects such as walls. Consequently, they can be received in locations where IR signals are blocked and thus not receivable (SF 4). In addition, tags using RF transmitters to transmit unique identifying codes are less expensive and have longer battery life than tags using IR transmissions. (SF 5). Most importantly, the use of RF enables multiple receivers in different rooms to receive a given tag transmission and to calibrate the location of the tag by means of received signal strength (RSSI). Such technology cannot be used where the tags, as in the '314 patent, transmit by means of IR. (SF 17). There is no factual dispute that Radianse's IPS works in a different way from the disclosed IR transmitters, and achieves a different result.

The patent requires "a plurality of receivers wherein at least one of said receivers is associated with each of said areas, each of said receivers comprising a converter for concerting a transmitted light based signal to an electrical signal and a validation circuit for processing said electrical signal to determine whether said electrical signals are representative of the unique

identifying codes associated with said transmitters." Radianse's receivers do not have a converter to convert a light-based signal to an electrical signal. (SF 31). In addition, Radianse's receivers do not have a validation circuit as claimed. (SF 32).

Radianse's IPS also does not have the claimed "processor means" set forth in claim 1 of the '314 patent. Radianse's processor does not perform the three claimed functions attributed by claim 1 to the "processor means." (SF 24).

Radianse's processor does not "comprise scanning means for scanning said receivers." It does not perform the "scanning" function. (SF 25).

Radianse's IPS also does not have the claimed "accumulating means for accumulating with respect to each transmitter those areas in which receivers have determined than electrical signal is representative of the unique identifying code associated with that particular transmitter and for accumulating a badge count for each accumulated area." Radianse's IPS does not perform that function. It does not accumulate a badge count and does not maintain a record of the number of times a Receiver receives a signal from an ID Tag. (SF 26 – 28). Radianse receivers transmit data packets to the Radianse server on a regular, pre-determined schedule, independent of whether or not the receiver has received signals from ID tags. (SF 31).

The same analysis also applies to claim 9, which is a method claim corresponding to the apparatus claim of claim 1. Claim 9, like claim 1, is directed to the transmission of "a light based signal representative of an identifying code unique to that transmitter." Radianse does not perform the "converting," "recording," "determining," and "accumulating" steps of claim 9. (SF 31, 28, 32, 27).

For these reasons, summary judgment of non-infringement must be entered for Radianse as to claims 1 and 9 of the '314 patent.

ii. The '195 Patent

Radianse does not infringe the '195 patent either literally or under the doctrine of equivalents, because the Radianse IPS does not use "infrared transmitters that transmit identifying codes" (claim 1) or infrared sensors "adapted to receive unique identifying codes from infrared transmitters" (claims 13, 18). For the same reasons set forth regarding the '314 patent, there is no genuine issue that Radianse makes no use of infrared transmissions from its tags to transmit identifying codes. (SF 3-15). For this reason alone, summary judgment of non-infringement should be entered for Radianse.

Claim 1 of the '195 patent also contains "means plus function" limitations. Radianse's IPS does not perform the claimed function of "sending and receiving messages over said computer network in a variable-based protocol that implements object identifier variables." It is undisputed that Radianse does not use a "variable-based protocol that implements object identifier variables." Unlike such a protocol, the Radianse receivers communicate with the server using a fixed protocol. Data from the receiver is always sent in the same format and is sent in its entirety so that there is no need to identify what data are being sent. (SF 25). Unlike the structure disclosed by the '195 patent corresponding to the function of "sending and receiving messages over said computer network in a variable-based protocol that implements object identifier variables," the Radianse IPS does not employ a server that maintains a "management information base" defining a set of conceptual variables that are maintained for devices on the network. With the Radianse system, unlike the claimed structure, there is no provision for getting or setting variables over the network using object identifiers. In contrast, Radianse sends all the information available from a device with each transmission from that

device. No object identifiers are required since the sequences are always the same and the data elements are always the same length. (SF 25).

Radianse does not use SNMP, which is disclosed by the '195 patent as an example of a variable-based protocol. (SF 25).

There is no genuine issue that the Radianse IPS does not have the structure disclosed in the specification of the '195 patent corresponding to the claimed function of "sending and receiving messages over a computer network in a variable-based protocol that implements object identifier variables." (SF 35 and Exhibit A hereto).

As discussed above, Radianse does not have a "plurality of sensors for receiving transmitted identifying codes from infrared transmitters." Radianse's IPS does not have the "interface circuitry" claimed in claim 1 of the '195 patent that performs the claimed function of "providing to a computer network object identifier variables in a variable-based protocol corresponding to identifying codes transmitted using infrared and received by infrared sensors." (SF 31). In addition, Radianse does not use the structure performing that function as disclosed in the '195 patent. In particular, Radianse does not use concentrators or collectors. (SF 29, 30).

For the same reasons as set forth above, Radianse does not infringe claim 13 of the '195 patent either literally or under the doctrine of equivalents. In particular, Radianse does not employ "transmissions from infrared transmitters containing a unique identifying code;" and it does not "provide… object identifier variables in the interface circuitry, said object identifier variables adapted for being communicated over the computer network in a variable-based protocol."

For the same reasons, Radianse does not infringe claim 18 of the '195 patent either literally or under the doctrine of equivalents. In addition, Radianse's IPS does not require or use an external device controller as required by claim 18. (SF 26).

iii. The '791 Patent

Radianse's IPS does not use "area detection;" it does not configure its system so that the signal from a tag within an area is received by only one receiver. To the contrary, it configures its system so that transmissions from tags are received by multiple receivers. (SF 16 - 18). Thus, Radianse's IPS does not use receivers that are configured to receive tag transmissions from "an assigned area of a pre-determined size," as required by all asserted claims of the '791 patent. This is so, because the Radianse system and the system claimed in the '791 patent are fundamentally different. The Radianse system is specifically designed so that multiple receivers will receive a transmission from a single tag. The receivers then use "RSSI" (received signal strength) to calculate the location of the tag. (SF 16, 17). In sharp contrast, the system patented under the '791 patent works properly only if a signal receiver is located in each "area," and a transmission from a tag is picked up by only one receiver. The receiver's location is then determined by reference to the receiver that picked up the transmission.

For the foregoing reasons, Radianse does not literally infringe any asserted claim of the '791 patent.

As an additional reason for non-infringement, the Radianse IPS receivers do not include a "data communications controller responsive to the receipt of a tag transmission" as required by each asserted independent claim of the '791 patent. Unlike the patented invention, Radianse's receivers do not provide output resulting from or triggered by the receipt of a tag transmission. Rather, Radianse's receivers send data packets to the Radianse server on a regular, pre-

determined schedule independent of whether or not the receivers have received signals from a tag. (SF 19).

Versus is estopped from asserting infringement of the '791 patent under the doctrine of equivalents, because of arguments asserted by Versus to the patent examiner in order to obtain allowance of the asserted claim. In particular, Versus argued that cited prior art references such as Hiraiwa were inapplicable, because "all of the references assume that radiolocation signals transmitted from an object will be received by more than one receiver." *See* Radianse's Claim Construction Brief, at 25-26, and Exhibits E and F to the Declaration of Sibley P. Reppert In Support of Radianse's Claim Construction Brief. By making this argument, Versus limited the scope of the asserted claims to a configuration in which there is only one receiver per assigned area. Radianse's IPS does not use that configuration.

iv. The '139 Patent

Like the '314 and '195 patents, the '139 patent requires that the tags transmit "substantially line-of-site [*i.e.*, IR] signals including a unique tag ID." As set forth above, Radianse does not do this, and therefore does not infringe either literally or under the doctrine of equivalents.

Claims 1 and 5 of the '139 patent also require the use of separate "extended area receivers" and "limited area receivers" and the generation of extended area detection patents and "limited area detection packets." The Radianse IPS does not use extended area receivers or limited area receivers, and does not generate extended area detection packets or limited area detection packets. (SF 32, 33, 34). For these additional reasons, Radianse's IPS does not infringe the asserted claims of the '139 patent.

Finally, Radianse does not employ a "data communications controller coupled to the receiver assembly for collecting the extended area and limited area detection packets," as required by claim 5 of the '139 patent. Radianse does not use a data communications controller. With the Radianse system, receivers themselves transmit data, which is sent directly to the server. (SF 26, 35, Exhibit A).

C. THE ASSERTED CLAIMS OF THE '195 AND '791 PATENTS ARE INVALID

i. The '791 Patent

As set forth in expert report of Nathaniel M. Sims and the following Invalidity Chart for the '791 patent attached to his report as Exhibit F, the '791 patent is anticipated by U.S. Patent No. 4,611,196 (Levinson) and U.S. Patent No. 5,319,363 (Welch), because each element of each asserted claim of the '791 patent is found in Levinson as well as Welch. Levinson was filed on September 19, 1985, well prior to the May 4, 1990 filing date of U.S. Patent No. 5,119,104, of which the '791 patent is a reissue. Consequently, Levinson invalidates the asserted claims of the '791 patent under 35 U.S.C.§102.

While U.S. Patent No. 5,319,363 (Welch), of which Nathaniel M. Sims is co-inventor, lists priority going back to August 31, 1990, there is no genuine issue that Dr. Sims and his co-inventor developed the technology of the patent at least as early as November 10, 1989. Statement of Fact No. 41. Therefore, the Welch patent predates the effective filing of the '791 patent.

Specific page and line references to Levinson and Welch corresponding to each element of the asserted claims of the '791 patent are set forth in the following table:

USP RE 36,791	USP 4,611,198 (LEVINSON)	USP 5,319,363 (Welch)

Clm 25. A location system for locating objects within a tracking environment using area-detection by receivers that receive electromagnetic transmissions *from assigned areas*, comprising:	Abstract; Col. 1, ln. 24 – Col. 2, ln. 30.	Col. 2, ln. 58 - Col 3, ln. 14.
for each object, a TAG transmitter for transmitting, at selected intervals, TAG transmissions that include a unique TAG ID;	Col. 1, ln 24-29; Col. 2, ln 7-8; Col. 3, ln. 21-22; Col. 4 ln. 26-35	Col. 2, ln. 58-67; Col. 7, ln. 51-52; Col. 8, ln. 41-46;
an array of receivers distributed within the tracking area, with each receiver being configured to receive TAG transmissions from *an assigned area of a predetermined size*;	Col. 1, ln. 40-63; Col. 4, ln. 35-46;	Col. 2, ln. 60-64; Col. 8, ln. 34-40

each receiver including a data communications controller responsive to the receipt of a TAG transmission for providing a corresponding area-detection packet that includes the received TAG ID; and	Col. 4, ln. 52-64	Col. 2, ln. 65-67; Col 8, ln. 46-49
a location processor for receiving the area-detection packets, and for determining the location of each TAG, and its associated object, *based on the identity of the receiver receiving the TAG transmissions for that TAG.*	Col. 5, ln. 1-11	Col. 2, ln. 68-Col. 3, ln. 32; Col. 6, ln 47-Col. 7, ln. 57; Col. 8, ln. 46-55

Clm 48. A method of locating objects within a tracking environment using area-detection by receivers that receive electromagnetic transmissions *from assigned areas*, comprising:	Abstract; col. 1, ln. 24 – col. 2, ln. 30.	Col. 2, ln. 58-Col 3, ln. 14.
for each object, providing a TAG transmitter for transmitting, at selected intervals, TAG transmissions that include a unique TAG ID;	Col. 1, ln 24-29; Col. 2, ln 7-8; Col. 3, ln. 21-22; Col. 4 ln. 26-35	Col. 2, ln. 58-67; Col. 7, ln. 51-52; Col. 8, ln. 41-46;
providing an array of receivers distributed within the tracking area, with each receiver being configured to receive TAG transmissions *from an assigned area of a predetermined size*;	Col. 1, ln. 40-63; Col. 4, ln. 35-46;	Col. 2, ln. 60-64; Col. 8, ln. 34-40

each receiver being responsive to the receipt of a TAG transmission for providing a corresponding area-detection packet that includes the received TAG ID; and	Col. 4, ln. 52-64	Col. 2, ln. 65-67; Col 8, ln. 46-49
determining the location of each TAG, and its associated object, *based on the identity of the receiver* receiving the TAG transmissions for that TAG as represented by the area-detection packet provided by such receiver that received the TAG transmissions.	Col. 5, ln. 1-11	Col. 2, ln. 68-Col. 3, ln. 32; Col. 6, ln 47-Col. 7, ln. 57; Col. 8, ln. 46-55

Clm 66. A location system for locating objects within a tracking environment using area-detection by receivers that receive transmissions from assigned areas, comprising:	Abstract; col. 1, ln. 24 – col. 2, ln. 30.	Col. 2, ln. 58-Col 3, ln. 14.
for each object, a TAG transmitter for transmitting at selected intervals, TAG transmissions that include a unique TAG ID;	Col. 1, ln 24-29; Col. 2, ln 7-8; Col. 3, ln. 21-22; Col. 4 ln. 26-35	Col. 2, ln. 58-67; Col. 7, ln. 51-52; Col. 8, ln. 41-46;
an array of receivers distributed within the tracking area, with each receiver being configured to receive TAG transmissions from an assigned area of a predetermined size;	Col. 1, ln. 40-63; Col. 4, ln. 35-46;	Col. 2, ln. 60-64; Col. 8, ln. 34-40

each receiver including a data communications controller responsive to the receipt of a TAG transmission for providing a corresponding area-detection packet that includes the received TAG ID;	Col. 4, ln. 52-64	Col. 2, ln. 65-67; Col 8, ln. 46-49
a location processor for receiving the area-detection packets, and for determining the location of each TAG, and its associated object, based on the identity of the receiver receiving the TAG transmissions for that TAG; and	Col. 5, ln. 1-11	Col. 2, ln. 68-Col. 3, ln. 32; Col. 6, ln 47-Col. 7, ln. 57; Col. 8, ln. 46-55

a local area network, said array of receivers being coupled to the location processor by said local area network, with each receiver including a LAN interface, such that the area detection packets are communicated to the location processor over said LAN.		Col. 3, ln 9-12; Col. 7, ln 44-56; Col. 8, ln 46-55

ii. **The '195 Patent**

Summary judgment of patent invalidity should be granted as to the '195 patent over the Greenspun, Hopper, Conrad, and Chaco prior art, as set forth in the following table (SF 43 - 57 and Expert Report of Nathaniel M. Sims):

USP 5,572,195	**USP 5,150,310 (GREENSPUN)**	**USP 5,402,469 (HOPPER)**	**USP 5,426,425 (CONRAD)**	**USP 5,455,851 (CHACO)**
CLM 1. An object location and tracking system for tracking infrared transmitters that transmit identifying codes, comprising:	Abstract; Col. 1, ln. 6-11; Col. 5, 1-15, 20-21, 26-31	Abstract; Col. 2, ln 54-56	Abstract; Col. 2, ln 40-53; Col. 3, ln 27-55; Col. 5, ln 25-28; Col. 8, ln 25-Col. 9,ln 8	Abstract; Col. 2, ln 5-19

a computer network for passing messages;	Col. 8, ln. 5-12	Col. 4, ln 50-53	Col. 4, ln 60-Col. 5, ln 4; Col. 11, ln 1-15; Col. 13, ln 1-35	Col. 2, ln 39-45; Col. 3, ln 48-Col. 4, ln 27
a computer connected to said network, said computer including means for sending and receiving messages over said computer network in a variable-based protocol that implements object identifier variables;	Col. 5, ln. 10-15, 50-55; Col. 6, ln. 40-54; Col. 8, ln. 36-54 Col. 5, ln. 32-40; Col. 7, ln 3-7, 33-48 Col. 8, line 5-12; Col 10, ln 30-39	Col. 2, ln 51-Col. 3, ln 8; Col. 5, ln 19-Col 6, ln 32	Col. 5, ln 5-Col. 6, ln 41;	Col. 2, ln 26-30; Col. 3, ln 3-Col. 4, ln 26
a plurality of infrared sensors for receiving transmitted identifying codes from the infrared transmitters, said plurality of infrared sensors providing signals containing the transmitted identifying codes; and	Col. 5, ln. 6-10, 32-55; Col. 6, ln. 40-47; Col. 8, ln. 59-66	Col. 2, ln 51-Col. 3, ln 8; Col. 4, ln 65-Col 5, ln 4	Col 2, ln 54-62; Col. 5, ln 25-35; Col. 9, ln 10-Col. 10, ln 65	Col. 2, ln 22-29; Col. 3, ln 13-Col. 4, ln 26 Col. 7, ln 61-Col. 8, ln 10

interface circuitry coupling said plurality of infrared sensors to said computer network, said interface circuitry including means for providing to said computer network object identifier variables in the variable-based protocol corresponding to the transmitted identifying codes received from said signals from said plurality of infrared sensors.	Col. 7, ln 3-10; Col. 10, lns 30-54	Col. 2, ln 51-Col 3, ln 8; Col. 5, ln 11-Col. 6, ln 24	Col. 5, ln 5-Col. 6, ln 41; Col. 11, ln 18-Col. 12, ln 50	Col. 3, ln 13-Col. 4, ln 26; Col. 8, ln 10-17; Col. 8, ln 54-Col. 9, ln 36

CLM 13. A method for tracking and locating objects in a system with a computer network, a computer connected to the computer network, infrared	Abstract; Col. 1, ln. 6-11; Col. 5, 1-15, 20-21, 26-31; Col. 8, ln. 5-12; Col. 5, ln. 10-15, 50-55; Col. 6, ln. 40-54; Col. 8, ln. 36-54; Col. 5, ln. 32-	Abstract; Col. 2, ln 54-56 Col. 4, ln 50-53; Col. 4; ln 55; Col. 5, ln 19-Col 6, ln 30; Col. 4, ln 65-Col 5, ln4; Col. 2, ln 65-70; Col 5, ln 6-19	Abstract; Col. 2, ln 40-53; Col. 3, ln 27-55; Col. 5, ln 25-28; Col. 8, ln 25-Col. 9,ln 8; Col. 4, ln 60-Col. 5, ln4; Col. 11, ln 1-15; Col. 13, ln	Abstract; Col. 2, ln 5-19; Col. 2, ln 39-45; Col. 3, ln 48-Col. 4, ln 27; Col. 2, ln 26-30; Col. 3, ln 29-47; Col. 2, ln 22-26; Col. 7, ln 61-

sensors, and interface circuitry connecting the computer network to the infrared sensors, the infrared sensors being adapted to receive unique identifying codes from infrared transmitters, comprising the steps of:	40; Col. 7, ln 3-7, 33-48; Col. 8, line 5-12; Col 10, ln 30-39; Col. 5, ln. 6-10, 32-55; Col. 6, ln. 40-44; Col. 8, ln. 59-66 Col. 7, ln 3-10		1-35; Col. 3, ln 7-9; Col. 4, ln 55-60; Col 2, ln 55-62; Col. 5, ln 28-34; Col 9, ln 10-Col. 10, ln 65; Col. 5, ln 5-24; Col. 11, ln 18-Col. 12, ln 50	Col. 8, ln 10; Col. 8, ln 10-17; Col. 8, ln 54-Col. 9, ln 36
providing object identifier variables in the interface circuitry, said object identifier variables adapted for being communicated over the computer network in a variable based protocol;	Col. 8, ln 27-35; Col. 7, lns 33-48; Col. 10, lns 30-39	Col. 2, ln 51-Col. 3, ln 8	Col. 3, ln 7-9; Col. 4, ln 55-60; Col. 5, ln 5-Col. 6, ln 41	Col. 3, ln 13-Col. 4, ln 26; Col. 8, ln 54-Col. 9, ln 16
receiving in one of the infrared sensors a transmission from one of the infrared transmitters containing a unique identifying	Col. 7, ln 3-Col. 8, ln 8	Col. 2, ln 51-Col. 3, ln 8; Col. 4, ln 65-Col. 5, ln 4	Col. 2, ln 54-62; Col. 5, ln 25-35; Col. 9, ln 10-Col. 10, ln 65	Col. 2, ln 22-29; Col. 3, ln 13-Col. 4, ln 26; Col. 8, ln 19-52

code;				
sending the received unique identifying code from the infrared sensor to the interface circuitry;	Col. 7, ln 3-Col. 8, ln 8	Col. 2, ln 51-Col. 3, ln 8; Col. 5, ln 14-18	Col. 5, ln 5-24	Col. 3, ln 13-Col. 4, ln 26; Col. 8, ln 10-17
providing the unique identifying code in the interface circuitry to the computer network in association with an object identifier variable; and	Col. 8, ln 9-12	Col. 2, ln 51-Col. 3, ln 8; Col. 5, ln 11-Col. 6, ln 24	Col. 5 ln 5-24; Col. 11, ln 18-Col. 12, ln 50	Col. 3, ln 13-Col. 4, ln 26; Col. 8, ln 10-17; Col. 8, ln 54-Col. 9, ln 16
receiving in the computer the unique identifying code from the network by accessing its associated object identifier variable.	Col. 8, ln 9-35	Col. 2, ln 51-Col. 3, ln 8; Col. 5, ln 11-Col. 6, ln 24	Col. 5, ln 35-45	Col. 3, ln 13-Col. 4, ln 26; Col. 9, ln 16-36

Finally, the asserted claims of the '195 patent are obvious as a matter of law over the materials attached to the Sims Report in Exhibit C, consisting of Ungerman-Bass' disclosure of an access hub using SNMP and Precision Tracking FM's promotional materials for its "Touch Path," combined with the Welch prior art. (SF 51-56). The '195 patent is nothing more than the system disclosed in Precision Tracking FM's document implemented using the standard SNMP networking protocol. Welch discloses the use of the standard SNMP networking protocol with

the use of wireless transmissions. As a matter of law, it would have been obvious to implement infrared transmissions in the system described in Welch in light of the foregoing references.

V. CONCLUSION

For the reasons set forth above, in the Affidavit of Paul Tessier, in the Expert Report of Nathaniel M. Sims Regarding Non-Infringement, and in the Expert Report of Nathaniel M. Sims, this Court should enter summary judgment that the asserted claims of the patents in suit are not infringed by Radianse, that the asserted claims of the '791 and '195 patents are invalid as anticipated under 35 U.S.C. §102, and that the asserted claims of the '195 patent are invalid for obviousness under 35 U.S.C. §103.

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Dated: December 1, 2005

CERTIFICATE OF SERVICE

I, Karen E. Keller, Esquire, hereby certify that on December 2, 2005, I caused to be electronically filed a true and correct copy of the foregoing document with the Clerk of the Court using CM/ECF, which will send notification that such filing is available for viewing and downloading to the following counsel of record:

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